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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/839,539	04/23/2001	Michihiro Kaneko	PU01-0171	2127
21254	7590	10/06/2003	EXAMINER	
MCGINN & GIBB, PLLC 8321 OLD COURTHOUSE ROAD SUITE 200 VIENNA, VA 22182-3817			WONG, KIN C	
			ART UNIT	PAPER NUMBER
			2651	

DATE MAILED: 10/06/2003

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/839,539

Applicant(s)

KANEKO ET AL.

Examiner

K. Wong

Art Unit

2651

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 July 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

Claim Objections

Claim 6 is objected under 37 CFR 1.75 (a) as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention because the instant invention is directed to disk drive and the power management for the disk drive. Moreover, claim 6 recites limitations that which are divergent in subject matter that could be restricted to class/subclass – 342/459, 342/357 and 711/112. However, this divergent subject matter will be examined in this office action.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims (1-3) are rejected under 35 U.S.C. 102(b) as being anticipated by Latham, II et al (5473238).

Regarding claim 1: Latham, II et al discloses a disk drive apparatus (as depicted in figure 2) for controlling, under supply of a predetermined rating voltage of power voltage (see col. 3, lines 28-38 of Latham, II et al), a head drive section (element 35 in figure 2) to position a head in a radial direction of an information recording disk (element 11 in figure 2) and carry out write and/or read operation of information while rotatively driving the information recording disk by a rotation drive motor (element 10 in figure 2), the disk drive apparatus including:

a forcible restoring section for controlling the head drive section to forcibly bring the head to a retract position when the power voltage goes below a first voltage level (see col. 3, lines 28-64 where Latham, II et al describes the retraction of the head when the fault detector detects abnormal low power); and

a normal restoring section for controlling the head drive section to move the head toward the retract position on the basis of the power voltage while the power voltage is smaller than the rating voltage but greater than the first voltage level (see col. 3, lines 31 -37 of Latham, II et al).

Regarding claim 2: the limitations of wherein the information recording disk (element 11 in figure 2) is a magnetic disk are considered inherent because the convention disk drive uses only optical, magnetic or magnetic-optical disks.

Regarding claim 3: the limitations of wherein the head is a magnetic head, and the retract position has a ramp provided for the magnetic head to run thereon are considered inherent because the common conventional disk drive comprises the noted elements of above.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims (4-5 and 7) are rejected under 35 U.S.C. 103(a) as being unpatentable over Latham, II et al (5473238) in view of Smith et al (6546456).

Regarding claim 4: the reason for Latham, II et al is stated in above. Latham, II et al is silent on power supply that is supplied from the car battery system. Smith et al is relied on for the teaching of supplying the disk drive power supply from the car battery system (see figure 1 and col. 5, line 9 to col. 6, line 3 of Smith et al).

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify the power supply system of Latham, II et al to includes with the car battery power system as taught by Smith et al. the rationale is as follows: one of ordinary skill in the art would have been motivated to provide an alternative power source for the disk drive.

Moreover, a substitution of one power source for other and without any unexpected result would be merely a substitution of an element for the same purpose. See In re Ruff, 256 F.2d 590, 118 USPQ 340 (CCPA 1958).

Regarding claim 5: the limitations of wherein the forcible restoring section and the normal restoring section are operated by a microprocessor operating on the power voltage are considered known because Latham, II et al discloses the similar processing integrating circuit structure that includes a microprocessor in col. 3, lines 11-25.

Regarding claim 7: Latham, II et al teaches that wherein monitor is made on only a battery voltage to the disk drive apparatus to detect variation in the power voltage in col. 3, lines 31-37.

Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Latham, II et al (5473238) and Smith et al (6546456) as applied to claim 4 above, and further in view of Kao (5374933).

Regarding claim 6: Latham, II et al and Smith et al are silent on navigation system (or GPS or global positioning system) with a disk drive. Kao is relied on for the teachings of GPS with a disk drive (see col. 7, lines 1-2 and figure 2 of Kao).

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify the disk drive of Latham, II et al and Smith et al with a GPS into the disk drive. The rationale is as follows: one ordinary skill in the art would have been motivated to an user route guidance as suggested in col. 7, lines 4-8 of Kao.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Ueki et al (5204593) and Utenick et al (5258695) are cited for disk drive power management and retraction. Skarda et al (5463261), Sadler (5576716) and Yeh (5666495) are cited fro power management in a vehicle. Hirshberg (5289369) and Ostteen et al (5294937) are cited for GPS with disk drive.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to K. Wong whose telephone number is (703) 305-7772.

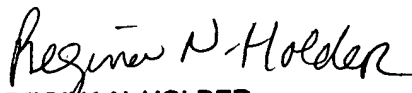
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dave Hudspeth can be reached on (703) 308-4825. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9306 for all communications.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-4700.


REGINA N. HOLDER
PRIMARY EXAMINER

 kw

28 Sept 03